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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/036,802 | 12/21/2001 | Toshiaki Fujii | KAW 98-2018-C | 5368 |
| 23413 | 7590 | 11/23/2004 | EXAMINER | |
| CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002 | | | KEENAN, JAMES W | |
| | | | ART UNIT | PAPER NUMBER |

3652

DATE MAILED: 11/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/036,802 | Applicant(s) FUJII ET AL. | |
| | Examiner James Keenan | Art Unit 3652 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9 and 11-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9 and 11-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 24-28 and 32-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 24, lines 3-4, the recitation that the loader is "for transporting the ... article between an inside of a container and the high cleanliness room" is not understood, in that the loader has no such functionality disclosed (it being noted that applicant's amendment has merely moved the objectionable language to a different portion of the claim without addressing the indefinite language per se);

In claim 32, line 3, the recitation of "a high cleanliness room" lacks any structural relationship to the movable stage even though it is recited in the same subparagraph;

line 7, no structure is recited in which "an opening portion" would be disposed;

and line 8, it is not clear if "a high cleanliness room" is the same as that previously recited in line 3.

In claim 33, line 2, --the-- should be inserted before "driving".

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made

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to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9 and 11-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonora et al (US 5,895,191) in view of Briner et al (US 5,810,537), both of record.

Bonora et al show the invention essentially as claimed, including a container for transporting articles, wherein the container is mounted on a loader which is disposed in a border portion between a high cleanliness room and a low cleanliness room, the loader including stage 116, door 110, opening portion 100 in wall 120, unifying means (col. 6, lines 57-60), and a driving apparatus (also see fig. 15).

Bonora et al do not explicitly state whether the high cleanliness room has a pressure higher than that of the low pressure room.

Also, Bonora et al do not show the loader in the low cleanliness side of the border or to have a gap between the opening portion and the door.

Briner et al show a similar apparatus including loader 10 having stage 12, container 36 having cover 38, and door 26 in an opening portion of a wall 24 that separates a low cleanliness room from a high cleanliness room, wherein the loader is disposed in the low cleanliness room, the high cleanliness room has a higher pressure than the low cleanliness room, and a gap is provided between the door and the opening portion through which air flows out from the high cleanliness room (col. 5, lines 3-19).

It would have been obvious for one of ordinary skill in the art at the time of the invention to have modified the apparatus of Bonora et al by disposing the loader in the low rather than high cleanliness room, pressurizing the high cleanliness room relative to

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the low cleanliness room, and utilizing a gap between the opening portion and the door, as suggested by Briner et al, as this is specifically disclosed as preventing contamination from flowing into the high cleanliness room.

Re claims 11 and 33, the use of a cover for the loader is considered a mere design expediency for safety, cleanliness, etc. Note also structure 20 of Briner et al. Re claim 33 in particular, note the alternate embodiment shown in figure 15 of Bonora.

Re claims 14 and 22, although Bonora et al do not disclose the container cover to include a protrusion into which a pin is inserted for unifying the cover with the door of the loader, it is disclosed that any known means for holding the doors together can be used, including latches, vacuum, or friction. The use of pins and corresponding holes to hold the cover and door together is therefore considered obvious. To have utilized a driving mechanism to simultaneously move two pins is simply a further design expediency. Note similar structure 32-33 of Briner et al.

Re claim 23, the use of an air cleaning device would have been an obvious and well known art design expediency to reduce contamination.

Re claim 29, note robot 152 in figs. 10-14 of Bonora et al for transferring the article.

5. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bonora et al in view of Briner et al, as applied to claim 9 above, and further in view of Mastroianni (US 6,068,668, of record).

The modified apparatus of Bonora does not have a second driver for moving the stage horizontally.

Mastroianni shows a shuttle 28 for moving a wafer container 38 horizontally toward and away from a load port of a wafer processing apparatus.

It would have been obvious for one of ordinary skill in the art at the time of the invention to have further modified the apparatus of Bonora by adding a second driver to move the stage horizontally, as shown by Mastroianni, to enable easier loading and unloading of the container to and from the load port.

6. Applicant's arguments filed 9/1/04 have been fully considered but they are not persuasive.

Applicant argues that neither reference teaches all of the limitations of the claims, and gives several examples of claim limitations allegedly not shown. However, applicant merely gives a generic and conclusory statement to this effect, without specifically discussing in what manner each reference allegedly fails to show these features. The Bonora reference in particular was extensively described during prosecution of parent application SN 09/180,848. Re applicant's specific allegation that the driving apparatus for moving the cover and door together are not disposed within the loader, applicant is directed to figures 9-14 of Bonora, in which element 104 is clearly disposed within the loader. It is also noted that while neither reference alone shows every limitation of the claims, it is the combination of references which must be considered.

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Applicant also argues that there is no motivation to combine the references because they are directed to “completely different systems”. Applicant asserts that Bonora “has nothing to do with transporting a wafer into and out of a high cleanliness room without being contaminated” and is “only concerned with sealing the wafer within the ... room so that the wafer is isolated”, and “teaches about sealing the container in order to keep the wafer in a sealed environment”. This is untenable. Bonora shows in figures 10-14 that the sealed container is brought to a load port, the unified door/cover assembly is removed (fig. 10), and either the cassette of wafers is removed for processing (fig. 11) or a robotic arm directly accesses the wafers in the cassette (fig. 14). This is the same basic structure and operation shown by Briner. It is not understood how applicant could conclude otherwise. Finally, it is noted that even though applicant alleges that Bonora and Briner are directed to different systems, applicant never states in what manner the references are different. Only Bonora is actually discussed with any specificity.

7. Applicant's arguments with respect to claim 34 have been considered but are moot in view of the new ground(s) of rejection.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

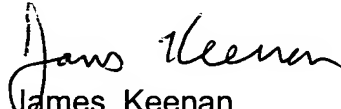
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Keenan whose telephone number is 703-308-2559. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on 703-308-3248. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


James Keenan
Primary Examiner
Art Unit 3652

jwk
3/25/04